

with significance difference of $X^2 = 28.3236$, $P = 0.0001$.

Conclusion: The results indicated that foot and mouth disease (FMD) is highly prevalent in wildlife-livestock interface areas than non interface areas. However uncontrolled livestock movement resulted into much higher foot and mouth disease (FMD) prevalence in Kongwa district even than districts found in the Wildlife-livestock interface areas. Higher prevalence of FMD in other specie than cattle tells that foot and mouth disease control planning should consider other species too.

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Time: 12:45-14:15

Room: Ballroom

Prevalence of noroviruses (NoV) in healthy children and HIV infected adults in Cameroon

T.F. Ndum^{1,*}, J.A. Ay²

¹ Camyuids Institute of laboratory Medicine and clinical Research, Douala, Cameroon

² Redeem Biomedical system, Douala, Cameroon



Background: Enteric viruses, notably noroviruses are a common cause of diarrhoea worldwide and may be detected in both symptomatic and asymptomatic persons

This study carried out on fecal samples in Cameroon describes the shedding of NoVs in healthy children and adults infected with HIV but without symptoms of diarrhoea.

Methods & Materials: The study was conducted in Limbe, between October and December 2009, South West region of Cameroon. Study participants included 54 healthy children, aged 5-15 and 93 HIV infected adults, aged 16-75 without any symptoms of diarrhoea.

Fecal samples were collected in sterile leak-proof plastic labelled containers. 10% fecal suspensions were made in phosphate buffered saline-pH 7.2 and centrifuged at 8000 x g for 5 minutes. Nucleic acid (NA) was extracted after initial storage at -80 °C by MagNA pure Lc total NA isolation kit, Roche Diagnosis, GmbH, Mannheim, Germany.

Reactions were performed in an ABI 7300 real time PCR system, Applied Biosystems, Foster city, CA, USA). Each sample was amplified in 4 parallel reaction wells for identification of 8 HEV, namely NoV GI, NoV GII, sapovirus (saV), rotavirus (RoV), astrovirus (AstV), adenovirus (AdV), hepatitis A virus (HAV) and enterovirus (EV).

Results: Human Enteric viruses were common with a prevalence of 53.7% in children and 35.5% in adult participants. Mixed infections (2-5 agents) were detected in fecal samples from 65% of the children and co-infection with NoV was demonstrated in almost all cases of mixed infections.

Conclusion: This study demonstrating a high prevalence of NoV and other Diarrhoea-related HEV in healthy children in Cameroon is likely an indication of an ongoing trend of global circulation of these HEVs.

Furthermore, the high prevalence of NoV genotypes, usually associated with non-bacterial diarrhoea outbreaks in developing Countries and detected in fecal samples of healthy children in

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Circulating plasmablasts with a bone marrow phenotype secrete non-specific IgM in acute hepatitis A



H.W. Lee^{1,*}, S. Hong², E.-C. Shin²

¹ Chung-Ang University College of Medicine, Seoul, Korea, Republic of

² Laboratory of Immunology and Infectious Diseases, Graduate School of Medical Science and Engineering, Daejeon, Korea, Republic of

Background: The antigen-specificity and phenotypes of Antibody-secreting cells (ASCs) have not been studied during a primary acute viral infection. We investigated the nature of ASCs here by direct ex vivo assays in patients with acute hepatitis A (AHA) which is caused by the primary infection of hepatitis A virus (HAV).

Methods & Materials: The study included 39 patients diagnosed with AHA infection who were hospitalized at Chung-Ang University Hospital. All patients were seropositive for anti-HAV IgM, and all had clinical features of acute hepatitis. Peripheral blood samples at the acute stage were collected on the day of admission from all of the 39 patients. Follow-up sampling was performed at the subacute stage (5-14 days) or at the convalescent stage (35-150 days). Serum levels of the total IgM, IgG and the subisotype of IgG were measured by a CBA assay. ELISpot filter plates were coated overnight with anti-human Ig to detect the total IgM or IgG-secreting ASCs.

Results: A robust plasmablast response was detected in peripheral blood during the acute stage and was dominated by IgM secretion. It was demonstrated that a substantial portion of the response was non-virus-specific in the study of the plasmablasts and the secreted IgM. We detected HAV-specific plasmablasts by staining with fluorochrome-tagged VP1 protein and compared them with non-HAV-specific plasmablasts. Non-HAV-specific plasmablasts have the phenotype of Ki-67low/CD138high/CD31high/CD38high as compared with HAV-specific plasmablasts, demonstrating that non-HAV-specific plasmablasts have a bone marrow (BM) plasma cell-like phenotype while HAV-specific plasmablasts have a typical phenotype of circulating plasmablasts.

Conclusion: These data suggest that non-HAV-specific plasmablasts are mobilized ASCs from the BM niches of plasma cells, whereas HAV-specific plasmablasts are newly generated ASCs. In this study, we demonstrated that pre-existing BM plasma cells are released to circulation during AHA and contribute to the non-virus-specific ASC response and IgM secretion.

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